

Kenai Peninsula Borough
Seward-Bear Creek Flood Service Area
Solid Waste Department

MEMORANDUM

TO: Brent Johnson, Assembly President
Members, Kenai Peninsula Borough Assembly

THRU: Charlie Pierce, Kenai Peninsula Borough Mayor *LR*
Cindy Ecklund, Assembly Member *(V/M) for CE*
Brenda Ahlberg, Emergency Manager *Bl*
John Hedges, Purchasing & Contracting Director *LF*
Brandi Harbaugh, Finance Director *Bl*

FROM: Stephanie Presley, SBCFSA Program Lead *SP*
Lee Frey, Solid Waste Director *LF*

DATE: March 24, 2022

RE: Ordinance 2021-19-43, Redirecting Excess Funds Appropriated for the U.S. Army Corps of Engineers Japanese Creek Feasibility Study to Complete Flood Hazard and Alternatives Analyses, and Design Plans for Flood Risk Mitigation Projects (Mayor, Ecklund)

Ordinance 2019-19-27 appropriated matching funds for the US Army Corps of Engineers (USACE) to complete a feasibility study of flood risk management alternatives on the Japanese Creek alluvial fan. The study required a \$450,000 local match with the Borough's Seward-Bear Creek Flood Service Area committing \$180,000, Borough's Solid Waste Department committing \$135,000, and the City of Seward committing \$135,000.

The USACE completed the feasibility study and provided the local sponsors with a detailed technical report of recommended measures and mitigation alternatives, including hydraulic and hydrologic analyses, national and local cost estimates, natural and cultural resources, and the identification, development and evaluation of alternatives. There is, in total, \$241,849.02 in project funds remaining (SBCFA \$90,695.28, City of Seward \$75,576.87, Borough Solid Waste Department \$75,576.87).

The greatest threat from flooding in the Japanese Creek corridor is a rapid deposition of sediment that would cause the existing levee and Dieckgraeff Road to overtop and fail. Japanese Creek has a history of overtopping the lower reaches of the levee and road with 8 such floods recorded in the last 20 years.

The USACE study included two iterations of analyses in the upper and lower reaches of the Japanese Creek watershed. In the upper reaches, while it was determined a large landslide or high sediment transport flood event could overtop or breach the existing levee, resulting in a release of flows along the

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alluvial fan, the modeled damages were not costly enough to justify rebuilding the levee. The elevation of this section of embankment appears to provide adequate protection during a base flood event.

In the lower reaches, the USACE provided alternatives for erosion and flood control to mitigate damages to Dieckgraeff Road and overtopping of the lower reaches of the levee into the Forest Acres neighborhood. Recommended alternatives include road modifications, a sediment trap, and downstream channelization.

The Kenai Peninsula Borough assumed site operations at the Seward Landfill in 1974. A Transfer Station was constructed in the early 1990s. As part of the process for siting the Seward Transfer facility and the need to cross state lands to access the facility, the Borough took on responsibility for Dimond Blvd., now named Dieckgraeff Road.

Dieckgraeff Road is the only ingress/egress to the Solid Waste facility located in this area; therefore, it is in the best interests of the Borough to contribute to the match to complete design and engineering for the recommended alternatives.

This ordinance would re-direct \$241,846.92 of the remaining match funds appropriated by Ordinance 2019-19-27; \$75,576.87 from the Solid Waste Operating Fund and \$90,695.28 from the Seward-Bear Creek Flood Service Area, to be combined with \$75,576.87 already appropriated from the City of Seward. The funds will be used to continue mitigation in the lower reaches including flood hazard analyses and updated mapping, lower reach alternative analyses, and construction ready design plans for Dieckgraeff Road and drainage improvements in the low-lying areas of the alluvial fan.

Your consideration of this ordinance is appreciated.

**FINANCE DEPARTMENT
FUNDS VERIFIED**

Acct. No.: 259.21212.20SFS.49999
Amount: \$ 90,695.28

Acct. No.: 290.32150.20SFS.49999
Amount: \$ 75,576.87

Acct. No.: 271.94910.20SFS.49999
Amount: \$ 75,576.87

By:  Date: 3/23/2022